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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,565	10/30/2003	Henry Dombroski	2421.003	1578

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EXAMINER

BELLINGER, JASON R

ART UNIT	PAPER NUMBER
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3617

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/699,565

Applicant(s)

DOMBROSKI ET AL.

Examiner

Jason R Bellinger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/1/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "air pressure gauge including a color coded dial face" as set forth in claim 5, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "18" has been used to designate both an outer bearing

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and the axle. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 19 and 52. Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

4. The disclosure is objected to because of the following informalities: In line 12 of page 8, the oil seal is designated with reference character "24", while previously in line 9 of the same page, the oil seal has been designated with reference character "22".

In line 19 of page 8, the term "hum" should be replaced with the term --hub--. In line 9 of page 9, the term "seal" should be replaced with the term --seals--. In line 16 of page 9, the term "can" should be replaced with the term --cause--. These corrections are suggested for grammatical clarity.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 7-8, and 11 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 7-8 set forth a "pressurized wheel hub aperture". There is no support for this limitation in the specification.

Claim 11 sets forth that the pressurized wheel hub includes "a polished ring securable to said axle and operatively associated with said oil seal, wherein said

polished ring provides a machined surface to permit enhanced sealing with said oil seal." There is no support for this limitation in the specification or drawing figures. Nowhere in the specification or drawing figures is a polished ring shown or described.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

8. Claims 6-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 6 is indefinite due to the fact that it is unclear what is being claimed by the phrase "defined as a pneumatic chamber *annular coaxially* disposed" in line 2 of the claim.

Claim 8 is indefinite due to the fact that it is unclear what is being claimed by the phrase "into said closed air space air pressure gauge is" in line 3 of the claim. The closed air space and air pressure gauge have been previously set forth as separate elements of the invention.

9. Claim 7 recites the limitation "said pressurized wheel hub aperture" in line 2. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 8 recites the limitations "said pneumatic chamber", "air pressure gauge", and "said pressurized wheel hub aperture" in lines 1, 3, and 3, respectively. There is

insufficient antecedent basis for these limitations in the claim. None of the elements have been previously set forth in claim 8 or claim 1, from which claim 8 depends.

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cobb in view of Stephens. Cobb show a pressurized wheel hub 24 having bearings 26 that are roatably securable to an axle 12.

Cobb does not specify the presence of seals between the hub and axle to form a closed air space around the bearings. Stephens teaches the use of seals (32 and the unlabelled seal at the outer end of the hub) between a wheel hub 11 and an axle 18 that form a closed air space around the bearings (12 & 13). Therefore from this teaching, it would have been obvious to one of ordinary skill at the time of the invention to provide the pressurized wheel hub of Cobb with seals around the bearings to prevent contaminants from entering and unduly wearing the bearing units, and thus extending the life of the bearing units.

Cobb as modified by Stephens includes means 22 for fluidly coupling the closed air space to a source 18 of pressurized air.

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Cobb as modified by Stephens does not specify that the air within the closed air space is maintained between 1 and 30 psi by the source of pressurized air. However, one of ordinary skill in the art at the time of the invention would find it obvious to maintain the air in the closed air space at a sufficient pressure to allow the chamber to remain airtight while still allowing any lubricants within the chamber to remain viscous.

Cobb as modified by Stephens (specifically referring to Cobb) shows the means 22 for fluidly coupling being a pneumatic chamber that is annularly and coaxially disposed along an end of the axle 12, and further having an inlet located outside the seals and an outlet 38 located within the closed air space.

12. Claims 2-5 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cobb in view of Stephens as applied to claims 1 and 6 above, and further in view of Hunt et al. Cobb as modified by Stephens does not show a means for measuring the amount of pressurized air within the closed space. Hunt et al teaches the use of an air pressure measuring device 40 having a dial face 106 with a pressure indicating needle 104 for indicating the amount of air pressurized within a closed system. A breached seal condition would be clearly indicated by this measuring device 40. The air pressure gauge 40 includes a color coded dial face 106 capable of indicating safe operation of the wheel hub (see column 6, lines 27-39).

The pressure measuring device 40 also includes a conduit 44 capable of being received within a through bore in a hubcap, thus fluidly coupling the gauge 40 to the closed air space within the wheel hub.



Therefore from this teaching, it would have been obvious to one of ordinary skill at the time of the invention to provide the pressurized wheel hub of Cobb as modified by Stephens with a pressure measuring device as set forth by Hunt et al for the purpose of alerting an operator to the amount of pressurized air within the pressurized wheel hub and determining whether or not a pressure leak has occurred.

Cobb as modified by Stephens and Hunt et al (referring specifically to Cobb) does not specify the type of air source 18 utilized. However, it is well known in the art to use air compressors to provide a source of pressurized air to a sealed chamber.

Furthermore, it is well known in the art that air compressors provided on a vehicle body may be powered by a DC energy source already on the vehicle (such as a battery, etc).

It is further well known in the art to provide the air compressor on any type of vehicle, be it a trailer or a towing vehicle.

### ***Double Patenting***

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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14. Claims 1, 2, and 3-4 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 3, 2, and 5-6 of copending Application No. 10/376,756. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims contain all of the limitations of the claims of the copending Application but in slightly different terminology. Therefore, it is obvious that the applicant is claiming the same invention in different terms.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references are considered to show pressurized wheel hubs having a closed air space and a pressurized source coupled to that air space. For example, Eberle shows a wheel hub of the type described above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R Bellinger whose telephone number is 703-308-6298. The examiner can normally be reached on Mon - Thurs (9:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on 703-308-0230. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

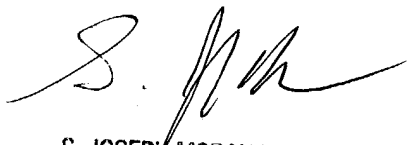
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason R Bellinger  
Examiner  
Art Unit 3617



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